

Application. No. 10/810,433  
Response Dated August 21, 2001  
Reply to Office Action of May 21, 2007

### **REMARKS / ARGUMENTS**

The present application includes pending claims 1-8, 11-19, 22-30 and 33-35. Claims 1-8, 11-19, 22-30 and 33 have been rejected. By this Amendment, claims 1, 6, 11, 12, 17, 22, 23, 28 and 33 have been amended, as set forth above, to further clarify the language used in these claims and to further prosecution of the present application. Claims 34 and 35 have been withdrawn without prejudice. Claims 36-50 have been added. The Applicant respectfully submits that the claims define patentable subject matter.

Claims 36, 41 and 46 are independent claims. Claim 36 is an amended version of claim 1. Claim 36 recites determining at least one starting antenna from said plurality of antennas based on said collected information using a majority polling scheme. By comparison, claim 1 recites determining at least one starting antenna from said plurality of antennas based on said collected information using a majority polling scheme and/or a weighted sum filtering scheme. Claim 41 is a similarly amended version of claim 12 and claim 46 is a similarly amended version of claim 23. The Applicant respectfully requests examination of the new claims 36-50 in view of the comments below.

Claims 1, 5-6, 12, 16-17, 23 and 27-28 stand rejected under 35 U.S.C. § 103(a) as being unpatenable over Menich et al. (US Patent 4,704,734, hereinafter "Menich") in view of Ishihara et al. (US Published Application 2006/0234776, hereinafter "Ishihara").

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Claims 2-3, 13-14 and 24-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Menich in view of Ishihara and further in view of Xu (US Published Application 2004/0203550). Claims 4, 15 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Menich in view of Ishihara and Xu and further in view of Akerberg (US. Patent 6,553,078). Claims 7, 18 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Menich in view of Ishihara and further in view of Lyons et al. (US Published Application 2005/0095987, hereinafter "Lyons"). Claims 8, 19 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Menich in view of Ishihara and further in view of Rozanski (US Patent 5,530, 926). Claims 11, 22 and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Menich in view of Ishihara and further in view of Banister (US Patent 6,456,647).

#### **Claim Rejections Under 35 U.S.C. § 103(a)**

##### **The Combination of Menish and Ishihara does not Teach Antenna Selection Based on a Majority Polling Scheme**

In the Final Office Action (page 4) the Examiner asserts that Ishihara teaches the limitation of claim 1, which recites determining at least one starting antenna from said plurality antennas based on collected information, using a majority polling scheme. While the Applicant agrees with the Examiner's assertion that Menich fails to teach this limitation (page 4), the Applicant disagrees with the Examiner's assertion that Ishihara

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does teach this limitation. For support the Examiner cites Ishihara (paragraphs 46, 47, 50 and 52). The Examiner proceeded to interpret the cited language from Ishihara in the Final Office Action by asserting that Ishihara teaches:

The determination of a starting antenna for receiving of the next frame from the result of comparing the mean value of the frames, collected information, from antenna in actual-use with the mean value of the frames from the antenna to be measured, for a predetermined number of times, as the majority polling from the frames which have greater mean value, paragraph 47, 50, 52; the averaging the received frames for a number of times (see Final Office Action, page 4).

The Applicant respectfully disagrees with the Examiner's interpretation of the teachings of Ishihara. The Applicant submits that Ishihara teaches "the reception level measuring section measures the reception levels of an antenna in actual use and an antenna to be measured once every 10 frames" (Ishihara, paragraph 45) and "the level averaging section averages both measurement results of the reception level measuring section a predetermined number of times and gives the averaging results to the antenna selection section" (Ishihara, paragraph 46). Ishihara further teaches:

The antenna selection section compares a mean value of the reception level of the antenna in actual use and a mean value of the reception level of the antenna to be measured input from the level averaging section and decides whether the antenna in use needs to be changed or not. That is, when (mean value of the reception level of the antenna in actual use) > (mean value of the reception level of the antenna to be measured), the antenna selection maintains the selection of the antenna in actual use. On the other hand, when (mean value of the reception level of the antenna in actual use) < (mean value of the reception level of the antenna to be measured), the antenna selection section changes the antenna in actual use to the antenna to be measured. (see Ishihara, paragraph 47).

The Applicant submits that based on the teachings of Ishihara, the next antenna that is used is determined based on the mean value, measured over a predetermined number

of times, of signal level measurements between the current antenna in use and the current antenna to be measured. The Applicant submits that Ishihara does not teach determining the next antenna in use based on which antenna has the larger signal level measurement the majority of times among the predetermined number of times. The Applicant submits that the term "mean" used in Ishihara refers to an "arithmetic mean", the known meaning of which is:

**arithmetic mean** *n*: a value computed by dividing the sum of a set of terms by the number of terms (Merriam-Webster's Collegiate Dictionary, 11<sup>th</sup> Edition, 2003).

Based on the known meaning of the term "mean", Ishihara teaches that a current antenna in use, or a current antenna to be measured, may have the larger signal level measurement a minority of times among the predetermined number of times and still be selected to be the next antenna in actual use.

The Applicant submits that Ishihara does not teach a "majority polling scheme" as is recited in claims 1, 12 and 23. Instead of teaching a "majority polling scheme," Ishihara merely teaches a comparison between two single numbers. More specifically, Ishihara teaches comparing an attribute of a single number (where the attribute is a calculated mean value based on signal level measurements from a current antenna in use) to an attribute of another single number (where the attribute is a calculated mean value based on signal level measurements from a current antenna to be measured). The comparison between two single numbers is no more of a "majority polling scheme"

than would be a comparison were between the attribute of height of one person and the attribute of height of another person. Notions of "minority" or "majority" would not apply in such a comparison: a reasonable person would not consider one person's height as constituting a "majority" or "minority" relative to the other person's height because it is a comparison between two single heights, each being distinct.

By contrast, a "majority" or "minority" comparison would be based on the number of times that one entity, or group, performed some action, or achieved some result, relative to the number of times that another entity, or another group, performed the same (or comparable) action, or achieved the same (or comparable result). More specifically, the known meanings of the term "majority":

**majority** *n* **3 a:** a number or percentage equaling more than half of a total  
**b:** the excess of a majority over the remainder of the total : MARGIN **c:**  
the greater quantity or share (Merriam-Webster's Collegiate Dictionary,  
11<sup>th</sup> Edition, 2003).

reference a basis of commonality, such as a total: a *percentage* of a total, or a *share* of a total. The known meanings of the term "majority" do not refer to comparison between two independent and/or distinct entities that do not reference a basis of commonality.

For example, when the known meanings of the term "majority" are applied to Ishihara, a majority polling scheme would determine the number of times, among the predetermined number of measurements, that the antenna in use had the higher signal level measurement relative to the antenna to be measured, versus the number of times

that the antenna to be measured had the higher signal level measurement relative to the antenna in use. By comparing the two numbers a next antenna in use would be selected. The Applicant submits that Ishihara does not teach a majority polling scheme as is recited in claim 1.

Furthermore, the Applicant submits that neither Menish nor Ishihara, nor any combination of Menish and Ishihara, teaches the limitation of determining at least one starting antenna from said plurality of antennas based on said collected information, using a weighted sum filtering scheme, as is recited by claim 1. In the Final Office Action (pages 4-5) the Examiner asserts that Ishihara teaches "antenna selection based on the averaging of the received frames for a number of times." For support the Examiner cites Ishihara (paragraph 46). The Applicant submits that the term "average" used in Ishihara has a known meaning of which is:

<sup>2</sup>**average** *adj.*: 1: equaling an arithmetic mean. (Merriam-Webster's Collegiate Dictionary, 11<sup>th</sup> Edition, 2003).

Based on the known meaning of the term "average", the Applicant submits that neither Menish nor Ishihara, nor any combination of Menish and Ishihara, teaches "a weighted sum filtering scheme wherein said weighted sum filtering scheme utilizes a plurality of different weighting factors," as is recited in claim 1. Instead, the Applicant submits that Ishihara teaches an average, wherein each of the weighting factors is equal.

Based on at least the foregoing, the Applicant believes the rejection of

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independent claims 1, 12 and 23 under 35 U.S.C. § 103(a) as being anticipated by Menish in view of Ishihara has been overcome and requests that the rejection be withdrawn. Additionally, since claims 2-8 and 11 depend upon independent claim 1, claims 13-19 and 22 depend upon independent claim 12 and claims 24-30 and 33 depend upon independent claim 23, the Applicant requests that the rejection of claims 2-8, 11, 13-19, 22, 24-30 and 33 also be withdrawn.

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### **CONCLUSION**

Based on at least the foregoing, Applicant believes that all pending claims 1-8, 11-19, 22-30, and 33-50 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a phone interview, and requests that the Examiner telephone the undersigned at 312-775-8072.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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/Ognyan I. Beremski/  
Ognyan I. Beremski, Esq.  
Registration No. 51,458  
Attorney for Applicant(s)

RHD  
MCANDREWS, HELD & MALLOY, LTD.  
500 West Madison Street, 34th Floor  
Chicago, Illinois 60661  
(312) 775-8072